tain affiliated stations. Since May 1994, 68 television stations have changed network affiliation.[31] Of these stations, 21 have moved to Fox from ABC, CBS or NBC. Changes in affiliation occurred in 37 markets.

Even those stations that did not change affiliation were affected, benefiting from improved compensation packages offered by the competing networks. Besides the financial incentives offered by Fox, it is estimated that the three networks will pay $200 million or more in additional compensation.[32] Fox's ability to attract additional affiliates stems in part from its success in buying broadcast rights to NFL football games. Fox reportedly paid $1.6 billion for four seasons, beginning in 1994, outbidding CBS, which had a relationship with professional football for 40 years.[33]

ABC, CBS, Fox and NBC have now been joined by two more new networks.[34] The United Paramount Network (UPN), owned by Paramount Television and Chris-Craft/United Television, began service on January 16, 1995.[35] It has 96 affiliates, including secondary affiliates, and reaches 79

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31 Julie A. Zier, *Fog of War Engulfs Affiliation Battles*, BROADCASTING & CABLE, Dec. 5, 1994, at 50-56.

32 CBS's Tony Malara: *In the Storm of the Eye*, BROADCASTING & CABLE, Dec. 19, 1994, at 34. *See also* Paul Kagan Associates, *Network Profits Impacted for a Decade by Comp Hikes*, TV PROGRAM INVESTOR, Aug. 31, 1994.

33 Joe Flint, *Fox to Pitch Older Viewers*, BROADCASTING & CABLE, Jan. 3, 1994, at 14-18, and Steve McClellan, *Fox's NFL Bid Drove Up Prices, Drove out CBS*, BROADCASTING & CABLE, Jan. 3, 1994, at 18-19.

34 "Who'd have thought the day [would come] when CBS beat ABC and NBC and yet still finished third in the ratings? It happened in Los Angeles and several other metered markets Monday night, as the UPN network soared to first place from 8-10 p.m. with the premiere of 'Star Trek: Voyager' and Fox placed second with a two-hour episode of 'Melrose Place.' " SHOPTALK for Thursday, Jan. 19, 1995 (Don Fitzpatrick Associates, San Francisco) (Internet Newsletter). In addition, according to A.C. Nielsen, Fox won the November 1994 sweep in Washington, D.C.

35 Information on United Paramount is from Eric Schmuckler, *New Network Ready to Roll*, MEDIAWEEK, Oct. 10, 1994, at 3; and Michael Freeman, *Fifth Net Race Takes Turn*, MEDIAWEEK, Aug. 1, 1994, at 5.

percent of U.S. TV households.[36] It offers two hours of prime-time programming on both Monday and Tuesday nights, and expects that within four to five years it will offer programming five nights per week, following the pattern of Fox's development. The other new network, WB Television, affiliated with Warner Brothers, a studio owned by Time Warner, began broadcasts on January 11, 1995.[37] It initially offers programming only on Wednesday nights, but expects to cover all nights in several years. WB expects to achieve an 80 percent reach using approximately 50 affiliates along with superstation WGN.[38]

It is worth noting that all three of the new broadcast networks are affiliated with Hollywood studios. This vertical integration balances the increased ability of ABC, CBS and NBC to produce their own programs or finance outside production as the restrictions associated with the financial interest and syndication rules and the network consent decrees are removed.

2. New cable networks

The spread of cable television across the nation has been both the cause of and a response to a tremendous increase in the number of cable networks. The first national cable television network, Home Box Office, was launched in 1972. As Figure 7 shows, the number of national cable video networks began to expand rapidly in the late 1970s, exceeding 40 pay and basic networks by 1982. In 1994, national basic cable networks alone numbered 79. Another 30 networks offered national non-basic service, and over 40 net-

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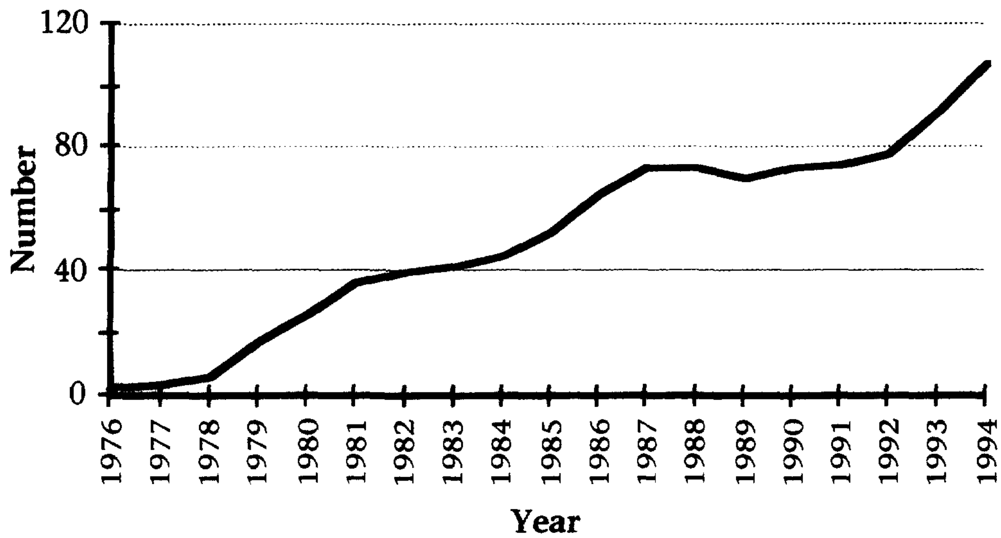
36 Elizabeth Jensen, *Building a Network: 50 Stations, 4 Shows, 1 Frog,* WALL STREET JOURNAL, Jan. 3, 1995, at A-11-12. *See also Anxious Parents Await Birth of a TV Network*, NEW YORK TIMES, Jan. 15, 1995, Section 2 at H-1 and ELECTRONIC MEDIA, Jan. 16, 1995, at 5.

37 Information on WB network is from Austin Evans Fenner, *Paramount Television CEO Faces Struggle to Develop Network Market Share*, KNIGHT RIDDER/TRIBUNE BUSINESS NEWS, Sept. 15, 1994; and Jensen, *supra* note 36. BROADCASTING & CABLE, Jan. 2, 1995, at 36, puts UPN's audience reach at 78 percent.

38 COMMUNICATIONS DAILY, Dec. 23, 1994, at 4, reports 47-48 WB affiliates. ELECTRONIC MEDIA, Jan. 16, 1995, at 5, lists 47 WB affiliates besides WGN.

works offered cable service regionally. These cable networks represent an explosion in the number of buyers seeking video programming.

Figure 7 U.S. national video cable networks[39]



Most of these cable networks do not rely on programming originally shown by ABC, CBS or NBC. Instead, they rely on theatrical and original made-for-television movies, sports, syndicated programming not originally shown on ABC, CBS and NBC, and original made-for-cable programming. Indeed, of the 94 cable networks analyzed for this report, only four rely on off-network programming for a majority of their program hours. See Appendix B.

3. First-run syndication

Syndicators of video programming for broadcast television are numerous and competitive. In 1994, television stations chose to air 259 different programs supplied by syndicators, not counting infomercials. These programs were packaged and distributed to stations by over 48 separate syndicators. First-run programming accounted for 75 percent of these shows, including over half of the 50 syndicated shows with the largest weekly gross market

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39 Source: Appendix A, Table A-5.

share.[40] According to a trade source, the current first-run market includes dozens of new shows.[41] The enormous growth of new broadcast and cable networks, both full and part-time, including providers of syndicated programming, has been facilitated by the increased use of satellites to deliver video programming from the mid 1970s through today. Satellite delivery has greatly reduced the costs of interconnection relative to previous landline technology and has also narrowed the differences in costs between full-time and part-time interconnection.[42]

D. Impact on networks of increased competition

1. Audience shares

As pointed out previously, neither ABC, nor CBS nor NBC could credibly be described as dominant. None of the networks has had a share of prime-time viewing even as high as 40 in the past 30 seasons. Furthermore, increasing competition from other video distributors has steadily eroded their audiences. See Figure 1. In the 1971/72 season, the first in which PTAR became effective, the three networks had an average share of 31.1 during prime time.[43] PTAR itself appears to have had little if any effect on overall network shares of the viewing audience, since the average share of ABC, CBS and NBC changed little in the first years after the Rule's adoption, and was still above 30 in the 1979/80 season. Thereafter, the effects of increased competition from cable, independent stations and other media became apparent, causing ABC's, CBS's and NBC's average share of prime-time viewing to fall almost continuously. By 1993/94, the average share in prime time for ABC, CBS and NBC was 20.2, less than two thirds its level in 1971/72.

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40 *See* PAUL KAGAN ASSOCIATES, TV PROGRAM STATS, Jan. 23, 1995.

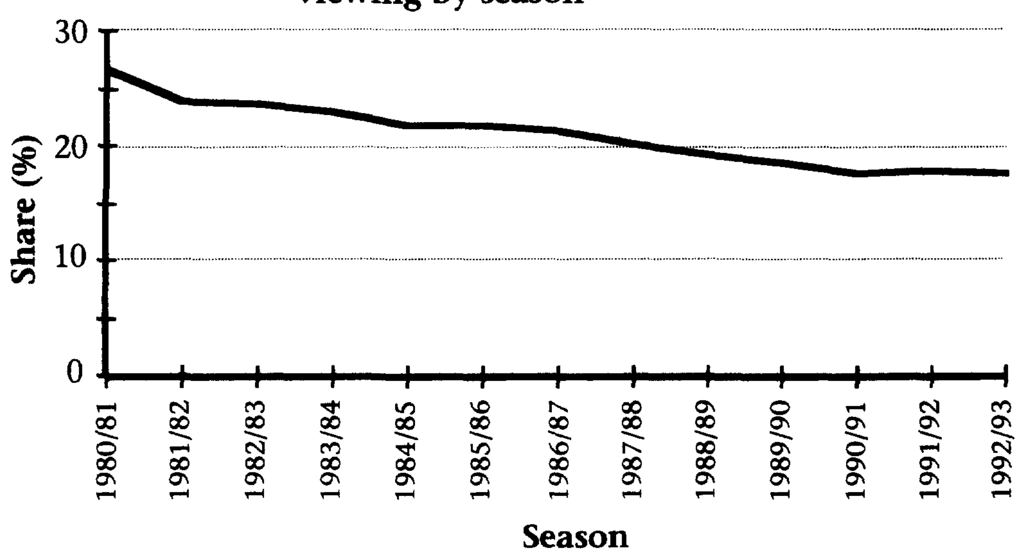
41 *See* BROADCASTING & CABLE, Jan. 23, 1995 at 88, listing new shows offered at NAPTE for the 1995/96 season.

42 NISS, *supra* note 4 at 123, 128.

43 *See* Appendix A, Table A-1.

Focusing on prime-time audiences overstates the role of ABC, CBS and NBC in television viewing as a whole. As recently as 1980, ABC, CBS and NBC affiliates' weekly average total-day share was 80.[44] See Figure 8. Viewing of affiliates during dayparts in which network programming was available made up 51 of the 80 share points. In other words, ABC, CBS and NBC served as video distributors for about half of all television viewing. By 1982, affiliates' share had dropped by 9 share points, principally due to a tripling of cable's share. Significant increases in cable's share of viewing have occurred in most of the subsequent years. In the 1990s, the share of independent stations (including Fox affiliates) has also increased significantly. As a result of the increased popularity of their competitors, ABC, CBS and NBC affiliates' share of the viewing audience has dropped by a third since 1980, to a level of 52. Of these 52 all-day share points, only 35 are attributable to dayparts programmed by the networks. The 35 share, rather than the 52 share, is the better indicator of networks' roles as video distributors. On this basis, the average share of each network is under 12 share points.

Figure 8 **Average ABC, CBS and NBC affiliate share of all-day viewing by season[45]**



44 *See* Appendix A, Table A-9.

45 Source: Appendix A, Table A-9.

2. Advertising shares

As with audiences, no network is dominant in national television advertising revenues. Probably the most sensible way to talk about dominance of advertising revenues is to use the "relevant market" paradigm of antitrust analysis. It is assumed for present purposes that the relevant market in which ABC, CBS and NBC compete includes only national television advertising, such as national cable, national spot and barter-syndication sales. This undoubtedly understates the true extent of the market because it excludes other national media, such as magazines and radio networks.

In 1970, ABC, CBS and NBC each had a share of national television advertising revenues equal to roughly one third of the total network share of 57.3 percent, or 19.1 percent each. See Figure 9. Ever since, the average network share has trended downward relative to national spot, national cable and national syndicated advertising. By 1993 the ABC, CBS and NBC average was only 14.6 percent of national television advertising. ABC, CBS and NBC cannot be said to dominate national television advertising even collectively, much less individually. In another proceeding, the Commission has put forward the tentative view that the relevant national advertising market in which TV broadcasters compete does not include national spot sales.[46] This tentative definition ignores the important competitive constraint imposed on network advertising rates by national spot advertising rates.[47] ABC, CBS and NBC combined once had a 100 percent share in this excessively narrow market; today their average share has declined to less than 23 percent.[48]

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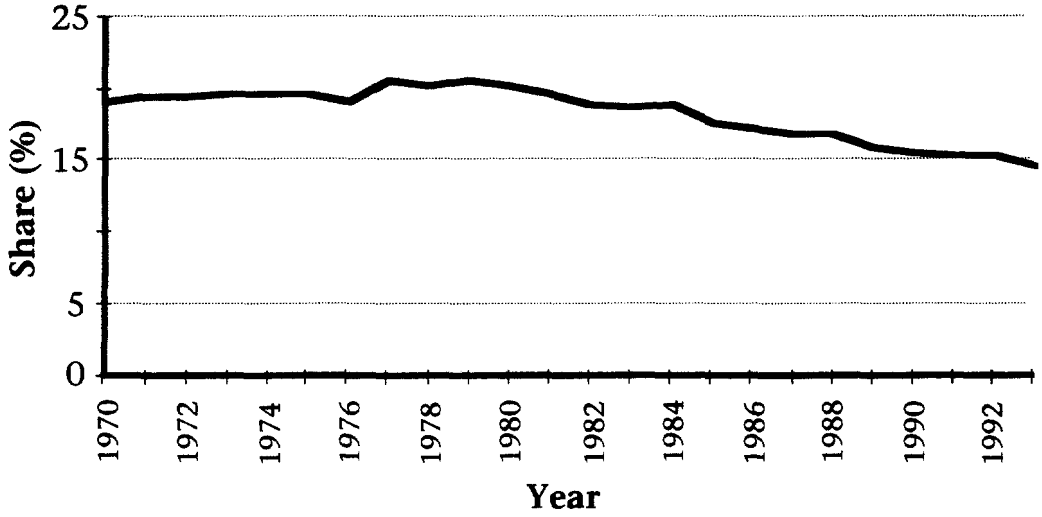
46 *See* Further Notice of Proposed Rule Making, MM No. 91-221 & 87-8, released Jan. 17, 1995, ¶37.

47 OWEN & WILDMAN *supra* note 5 at 153, 158; J. Peterman, *Differences between the Levels of Spot and Network Television Advertising Rates,* (1979)(Working Paper No. 22, Federal Trade Commission, Bureau of Economics); and NISS, THE MARKET FOR TELEVISION ADVERTISING, PRELIMINARY REPORT (1980).

48 *See* Appendix A, Table A-10.

Figure 9 **Average ABC, CBS and NBC share of U.S. national television advertising**[49]



3. Relations with affiliates

The balance of bargaining strength between networks and affiliates has shifted significantly in favor of affiliates since 1970. Complaints about dominance of affiliates' program choices arise from a fundamental misunderstanding of network efficiencies.[50]

Both the network and the affiliate derive benefits from the affiliation and from the mutual restraints set out in their affiliation agreements, as in any voluntary economic relationship. These agreements, like most contracts, restrict the parties' freedom of action so as to increase the overall return that they will share. The network benefits because it gains access to a potential television audience in the local market that, if it can be attracted with popular programs, can be combined with audiences in other markets and sold to national advertisers. The affiliate benefits because it shares in the advertising revenues generated by this process through the sale of adjacencies, through network compensation payments, and in other ways. In

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49 Source: Appendix A, Table A-10.

50 For a discussion of network efficiencies, see OWEN & WILDMAN *supra* note 5 at 53-54, 151ff.

setting the terms of the affiliation, the network and affiliate agree on how the benefits of affiliation will be shared between them, and how each should behave to maximize the joint benefits of the affiliation. The economics of networking dictate that affiliate clearance of network programming will increase the joint benefits of the affiliation relationship. How these joint benefits are divided between the parties is another matter, one dependent on the relative bargaining strengths of the parties.

Each network seeks to affiliate with one station in each market, and (except in very small markets) stations typically affiliate with only one network. Each network competes with other networks to attract an affiliate in each market, and stations compete among themselves to affiliate with a network on favorable terms. When the number of networks exceeds the number of stations in a particular market, each network risks having no affiliate in that market. The bargaining power of stations is considerably enhanced in such settings. The appearance of the Fox network has created such a situation in many markets. The emergence of WB and UPN has now further strengthened stations' bargaining positions.[51] The recent upheaval in network-affiliate relations referred to above, in which at least 68 stations have changed affiliation since May 1994, is another strong indicator that networks do not "control" affiliates.

The increased bargaining power of affiliates in recent years, vis-à-vis ABC, CBS and NBC, means that a greater portion of the joint benefits of network affiliation will flow to the stations. It should be noted, however, that this has little or no bearing on the economic efficiency of the broadcast market. Maximizing the joint benefits from affiliation is the important goal from the point of view of consumers and society as a whole.

Affiliates are not compelled to broadcast the programming supplied by their network. Each station can, and especially in non-prime-time dayparts

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51 The number of *new* networks seeking affiliates—three—exceeds the growth in the average number of *new* independents per market since 1970, which is less than two.

frequently does, choose not to "clear" network programming.[52] Affiliates clear most network programming because it is generally of much higher quality relative to cost than alternative programming that the station could obtain. Therefore, it is more cost-effective in generating audiences. The network efficiencies that produce this result are further explained below. It is high program popularity or quality for the price, not "control" exercised by the networks, that is responsible for the high clearance rates of ABC, CBS and NBC prime-time programs.[53]

Perhaps the best evidence of the lack of network control over affiliates' program choice is found in the dayparts that ABC, CBS and NBC do *not* program. If networks "controlled" their affiliates, networks could program throughout the broadcast day and compel affiliates to clear the programming. Instead, many affiliates have told their networks that they prefer to program these dayparts on their own. ABC, CBS and NBC recognize that if affiliates do not clear at a high rate, it is not desirable to offer programming during those dayparts. Indeed, the three networks offer 25 fewer hours of weekly programming today than they did in 1977. See Appendix D. The decision by ABC, CBS and NBC not to program in certain dayparts is a direct result of affiliates' freedom to choose. Moreover, many affiliates do not broadcast the network schedule at the times it is offered. For example, nearly a third of the affiliate clearances obtained by ABC in 1995 of its morning talk show, *Mike and Maty*, were not live. Instead many affiliates chose to broadcast the program on a delayed basis, typically during late night. Affiliates often treat network non-prime-time programs like syndicated fare and broadcast these programs when they choose.

4. Purchasers and producers of programming

PTAR was not needed to decrease network "dominance" of program production. Indeed, one would not expect PTAR to have such an effect. First,

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52 For recent data on clearance rates, see Appendix D.

53 KRATTENMAKER & POWE, *supra* note 4 at 73; NISS, 2 BACKGROUND REPORTS 199 (1980).

no network dominated program production before 1970. Neither ABC, nor CBS nor NBC has ever been dominant in the production of prime-time entertainment programming. Indeed, each of these networks has relied principally on outside sources to supply the programming offered to its affiliates. Second, the financial interest and syndication rules (adopted contemporaneously with PTAR) and the DOJ consent decrees, rather than PTAR, were the vehicles designed to deal with this issue. Finally, there is no evidence that any network today is seeking to dominate prime-time entertainment program production, even with respect to its own needs.

Table 2 ABC, CBS and NBC production of prime-time entertainment series as share of all hours aired[54]

Year	Share of all hours (percentage)
1969/70	1.2
1974/75	1.7
1979/80	2.1
1984/85	0.9
1989/90	3.0
1993/94	7.6

Table 2 shows the percentage of prime-time entertainment series aired by ABC, CBS and NBC that was produced in-house. Since as long ago as 1969, before PTAR, the financial interest and syndication rules or the DOJ consent decrees were instituted, the average network in-house share of prime-time entertainment series programming has never exceeded 10 percent in any year.[55] Even these small shares overstate the role of the networks as video producers. In constructing a database of first-run network and syndicated television series, specials, mini-series and made-for-TV movies, Economists Incorporated identified 1,399 production companies producing shows that were either broadcast or carried on cable in 1994. ABC, CBS and NBC are only three of a vast number of television

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54 Source: Appendix A, Table A-11.

55 *See* Appendix A, Table A-11.

production companies, and their role in overall television production is quite small. See Appendix F.

As noted above, Fox, United-Paramount and Warner Brothers, the three new broadcast networks, are each vertically integrated into program production. Even if vertical integration conveyed an advantage arising from exclusion of competitors (as opposed to efficiencies), neither ABC, nor CBS nor NBC could disadvantage new entrants that are similarly integrated.[56]

There is also the issue of ABC, CBS or NBC dominance in the *purchase* of video programming. In its Report and Order instituting PTAR, the Commission invoked the image of a "three-network funnel" through which programming had to pass.[57] This metaphor implied that most, if not all, video programming had to pass through the networks before it could reach the public, and that the networks acted as one. Today only a small part of first-run video programming is produced or bought by ABC, CBS or NBC.

Out of an identified 1,729 first-run television series, specials, mini-series and made-for-TV movies appearing on broadcast or cable television in 1994, ABC aired 160, CBS aired 188 and NBC aired 180. These three networks combined aired only 30.5 percent of the identified television programs of these types. See Appendix F.

In 1994 the video entertainment programming purchased by ABC, CBS and NBC each accounted for approximately 9.4 percent of aggregate expenditures on video programming in the United States, after taking into account distribution fees associated with syndicated programming and home videos. Programming produced in-house by ABC, CBS and NBC amounted to 5.7 percent, or on average 1.9 percent per network, of aggregate expenditures. See Appendix G.

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56 *See Hollywood Studios' Growing Clout Scares Big Networks*, WALL STREET JOURNAL, Feb. 13, 1995, at B-1.

57 Report and Order in No. 12782, 23 FCC 2d 382 (1970) ¶23.

A significant portion of video programming is created for theatrical exhibition, followed shortly by release in windows for pay-per-view, home video rental, and premium cable networks. Even within that portion intended for first-run television exhibition, ABC, CBS and NBC face strong rivalry from other purchasers of video programming, such as cable networks. Cable networks have purchasing power out of proportion to the size of their audiences. Unlike broadcast networks, which must rely on advertising revenues, cable networks obtain some or all of their revenues from subscriber or operator fees. These fees permit viewers directly or indirectly to pay for programming they want to see. It appears that television households' willingness to pay for entertainment programming greatly exceeds advertisers' willingness to pay for entertainment audiences.[58] As a result, cable networks can buy a greater portion of video programming than their share of the television audience alone would suggest.

Analysis of programming broadcast by 94 national and regional cable networks for a sample week in 1995 indicates the following patterns: 28 percent of programming hours is movies, some of which were made-for-television; 5 percent is original sports programming; 3 percent is infomercials; 56 percent of program hours is other programming not originally shown on ABC, CBS or NBC; and only 8 percent is programming originally broadcast by ABC, CBS or NBC. See Figure 14 and Appendix B. Thus, the vast majority of cable programming never passes through any three-network "funnel."

Another area of video entertainment in which ABC, CBS and NBC have virtually no influence, much less dominance, is home video rental and sales. It is estimated that in 1994 over 84 million households in the United States had a VCR.[59] Videos for home use are a major source of demand for video programming. Households spent more than $14 billion on video rentals

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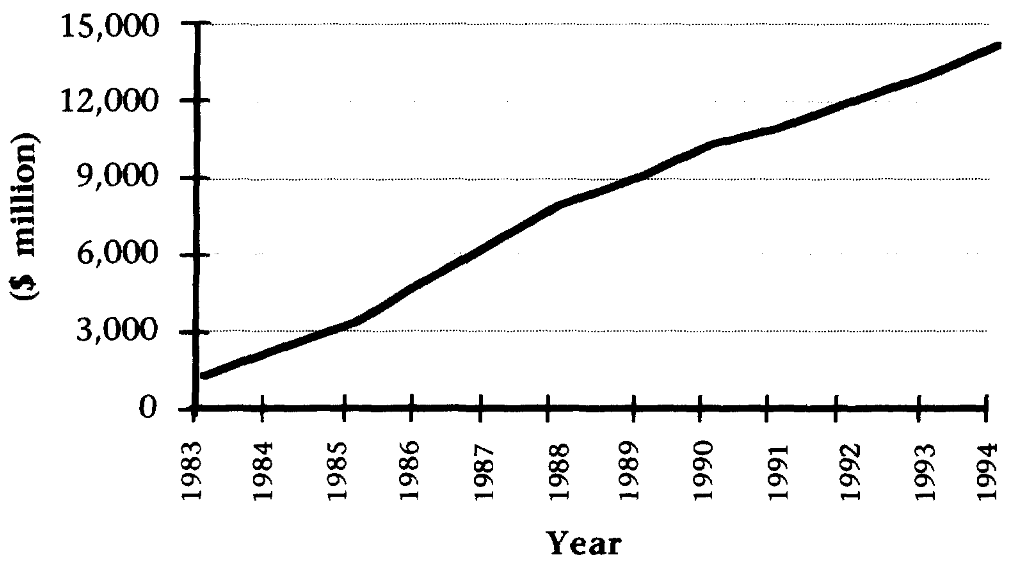
58 Compare, for example, the willingness-to-pay estimates of ROGER G. NOLL, ET AL., ECONOMIC ASPECTS OF TELEVISION REGULATION 277-288 (1973), discussed *infra* §III.B.5, with per-household television advertising expenditures.

59 *See* Appendix A, Table A-8.

and purchases in 1994. See Figure 10. A substantial portion of these expenditures went to pay for programming expenses. (Appendix G.) Some comparison can be made to other sources of video demand using revenue figures. Total revenues of basic cable networks were estimated at $4.6 billion in 1993.[60] The revenues of ABC, CBS and NBC in 1993 were estimated to total $9.4 billion.[61]

Figure 10 U.S. household video cassette expenditure[62]



60 Paul Kagan Associates, KAGAN MEDIA INDEX, Dec. 29, 1994, at 14.

61 *See* Appendix A, Table A-10.

62 Includes rentals and sales of pre-recorded video cassettes. Source: Appendix A, Table A-8.

III. Effects of PTAR on Viewers and Competition

A. Network efficiencies

Because of PTAR, ABC, CBS and NBC affiliates are unable to show first-run network programming during the access period. This restriction harms viewers, advertisers and producers. It ignores the economic efficiencies that explain the existence of broadcast networks, prevents the realization of those efficiencies during the access period, and causes ABC, CBS and NBC affiliates to substitute programming that is cheaper and lower-rated than first-run network programming.

Broadcast networks perform an important transactional function among program sources, local television stations, viewers and advertisers. Television programs are bought by the networks from independent sources or, much less frequently, produced by the networks themselves. Each network then delivers programs to its affiliates in return for access to the affiliates' local audiences. Finally, both networks and affiliates sell the accumulated audiences to advertisers.

Economies of scale in a number of dimensions are important to understanding network economics. Television programs are "public goods" in that "consumption" by one viewer does not prevent or reduce the programs' availability to other viewers. Programs of general interest typically involve high fixed costs; the greater the audience for each, the lower the cost per viewer. Thus, program distributors that can generate large audiences will have lower costs per viewer for the same programming outlay, or conversely can afford to make larger outlays for programming at the same cost per viewer as distributors that attract smaller audiences.

The forces in favor of mass audiences for television programming are reinforced by the desire of many advertisers to reach large segments of the total population rather than regional or local audiences. Supplying very large audiences at one time avoids unwanted duplicative exposure for those advertisers seeking to reach or "cover" a large percentage of the population. Unwanted duplication, as well as higher transactions cost per viewer, can occur when such advertisers buy access to a number of smaller audiences.

Competition to sell advertising time benefits viewers because networks and others compete for audiences by increasing the attractiveness of their programming. Such competition results in greater expenditures on programming by increasing the level of inputs used in program production and, for scarce inputs, by bidding up their prices.

Full-time networks benefit from a number of efficiencies. First, full-time networks enjoy lower program distribution costs. Commitments for full-time, dedicated use of transmission facilities for delivery to local outlets, by either satellite or fiber optic networks, result in lower average costs per program distributed than part-time use of such facilities.

Second, full-time networks allow advertisers to purchase time on many stations for a number of different programs in a single up-front transaction before the season. This is clearly less costly than negotiating separate contracts with each station, numerous station representatives or providers of individual programs, as happens in the case of the national spot and barter-syndication markets. Full-time networks also make effective use of advertising availabilities to promote upcoming programs to their existing large audiences, sustaining their ability to deliver large numbers of viewers. Effective scheduling can also reinforce a network's ability to deliver a mass audience. This occurs because the popularity of a program depends in part upon the popularity of adjacent programs, although the advent of channel "grazing" may have reduced the importance of this effect. Audience flow from one program to the next is an externality among programs that each network internalizes. Because full-time networks have demonstrated the ability to manage schedules of programs that deliver large, unduplicated audiences through simultaneous broadcast, advertisers have greater assurance that they will reach the audiences they are seeking. Advertising on barter-syndication programs and advertising purchased in the national spot market lack the benefits of such coordination and necessarily involve higher transactions costs.[63] Barter-syndication advertising, while often like network advertising in terms of national coverage and transaction costs, cannot guarantee that the advertising will be broadcast simultaneously at a preferred time in all markets, or that particular and predictable lead-in programming will be present. Nevertheless, barter-syndication advertising has become an increasingly close substitute for network advertising, and this fact helps explain the growth of first-run syndication.

Third, full-time networks negotiate single contracts with their affiliates covering the acquisition of and compensation for a large number of programs, greatly reducing the transactions costs of obtaining clearance on a large number of stations on a program-by-program basis.[64] Finally, a full-time network can spread over its entire portfolio of programs the considerable risk that any given program will fail and more accurately determine its expected rate of success. Networks are therefore likely to be superior risk-bearers.

Because of these efficiencies, ABC, CBS and NBC can offer advertisers very large audiences at favorable prices. In particular, advertisers seeking to reach large nationwide audiences enjoy lower costs per audience member for advertising time on network prime-time programs than with other na-

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63 If barter-syndication and national spot advertising are inherently more expensive or less desirable than network advertising, why do these forms of advertising exist? One answer is that, for some advertisers, such as those with a need to reach regional audiences, the spot market provides advantages offsetting its higher cost. For example, many advertisers do not need to reach the entire nation and may find national spot advertising to be comparable in cost to network advertising in reaching their desired target audience. Barter-syndication offers a national product with some deficiencies at a lower price than network advertising.

64 Affiliation agreements between ABC, CBS and NBC and their respective affiliates are subject to a number of Commission restrictions, many of which probably reduce efficiency and lower program quality. NISS, *supra* note 53 at 246-53 (1980).

tional television advertising. For example, the estimated CPM (cost per thousand households) for a 30-second spot on a network prime-time program in 1994 was $7.64. In contrast, the CPM for audiences bought through national spot markets on individual television stations in prime time was $12.29.[65] Thus, by reducing the number of prime-time network spots available to advertisers, PTAR has harmed those advertisers who otherwise would have enjoyed lower costs from purchasing the additional inventory of network advertising.

B. Effects of PTAR on viewers

1. Reduction in program quality and loss of options

ABC, CBS and NBC compete with other sources of programming for clearances on their affiliate stations. Network efficiencies make it likely that, without PTAR, many affiliates would find network programming more profitable than syndicated fare in the access period. In other words, network efficiencies make it likely that ABC, CBS and NBC would be able to offer their respective affiliates programming of higher quality and more attractive to viewers than programming being obtained from syndicators.[66] These efficiencies are not unfair advantages that ABC, CBS and NBC have somehow captured at the expense of their rivals; they are economic advantages inherent in networking. Because first-run syndicated programs do not benefit from network economies, they necessarily incur higher transaction costs, reach fewer stations and smaller audiences, earn less money, and

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65 TV BUREAU OF ADVERTISING, TRENDS IN MEDIA: AUDIENCE COST CPM'S 1994 (utilizing data from A.C. Nielsen). As noted above, these price differences do not necessarily mean that national spot and network advertising are not good substitutes for a significant number of advertisers. From the point of view of advertisers, a national network buy, while having a low CPM for delivered households, may have a high CPM per delivered member of the advertiser's target audience. That audience, if geographically concentrated, may be reached at an equivalent or lower CPM via the national spot market.

66 It is, of course, impossible to predict with certainty that ABC, CBS and NBC affiliates will find it profitable to choose network programs in the access period, based simply on practices prior to 1970, because relevant conditions may have changed.

must be produced on smaller budgets than network programming. By contrast, it was doubtless the advantages of networking over syndication, among other things, that led syndicators Fox, Paramount and Time Warner to form new broadcast networks. Competition for advertising revenues for large national audiences leads ABC, CBS and NBC to buy very expensive prime-time first-run network programming.

Estimates of the production costs for first-run syndicated news magazines and "reality" shows, which are among the types of first-run syndicated programs commonly broadcast by network affiliates during the access period, range from $30,000 to $125,000 per half-hour segment.[67] Prime-time network programs involve much higher production cost. Production cost for a typical network prime-time half-hour situation comedy is about $625,000 per episode.[68] One-hour prime-time programs normally cost over $1 million per episode to produce,[69] and the average network made-for-TV movie costs $2.8 million.[70] Because program cost, quality and popularity tend to be highly correlated,[71] more expensive first-run network programs tend to attract larger audiences than lower-cost syndicated fare.

2. Loss of efficiencies and audiences

Because PTAR constrains ABC, CBS and NBC from programming in the access period, the benefits of network efficiencies, manifest in higher quality programming, are simply lost, to the detriment of the viewing public. As a result, many viewers are deprived by government fiat of their preferred viewing option—first-run network programming—during the access period. Viewers lose because the Rule requires ABC, CBS and NBC affiliates to

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67 BROADCASTING & CABLE, Apr. 12, 1993, at 34.

68 Paul Kagan Associates, TV PROGRAM INVESTOR, Aug. 31, 1994.

69 Paul Kagan Associates, TV PROGRAM INVESTOR, Apr. 26, 1994.

70 Paul Kagan Associates, TV PROGRAM INVESTOR, Nov. 15, 1994.

71 OWEN & WILDMAN, *supra* note 5, at 166; KRATTENMAKER & POWE, *supra* note 4 at 73.

air less expensive, less attractive programs than the network programs that can never be broadcast because of the Rule.

Not surprisingly, ABC, CBS and NBC affiliates are unable to attract as many viewers with the lower-quality programming the Rule requires them to broadcast. These affiliates' share of the viewing audience is lower during the access period (here, 7:30–8:00 p.m.) than it is during the rest of prime time. This is demonstrated clearly in Table 3. One would expect that ABC, CBS and NBC affiliates would attract a larger audience, and viewing shares comparable to those in the rest of prime time, were they able to broadcast first-run network programming during the access period. That is equivalent to saying many viewers would prefer first-run network programming during the access period rather than the choices available to them under the Rule.

Table 3 Network affiliate shares Monday–Friday[72]

	7:30–8:00 p.m.	Prime time
	All markets	
ABC, CBS and NBC Total	55	59
	Top-50 markets	
ABC, CBS and NBC Total	52	58

Preventing viewers from seeing what they prefer in order to promote the fortunes of particular segments of the industry has two direct, undesirable effects that are harmful to viewers. First, during the access period some viewers watch programming other than what they would prefer to watch.

72 Source: NIELSEN TELEVISION INDEX. *See* Appendix K. As Table K-6 indicates, viewing on affiliates remains depressed during 8:00-8:30. This can be attributed at least in part to the lower lead-ins resulting from smaller access period audiences.

This necessarily reduces these viewers' welfare, and that of society as a whole.[73] Second, some viewers choose not to watch television *at all* because their preferred option, first-run network programming, is unavailable.[74] A later section discusses measurement of the welfare loss from both of these effect, based on dollar measures. The next two sections consider the second effect only, based on viewing measures. PTAR's effect on viewing is analyzed by contrasting viewing during the access period in the two years before the Rule with what happened during the first two years when the Rule was in effect. During the first year of the Rule, PTAR's effect can be measured directly because the networks continued to offer network programming that year from 7:30–8:00 p.m. on Tuesday nights but not on the other weekday nights. After that first year, network programming was discontinued on all nights during the access period, so to measure PTAR's effect after the first season, viewing must be contrasted with viewing levels before the rule went into effect.

3. Reduced viewing in the 1971/72 season (the Tuesday test)

Before the 1971/72 television season, ABC, CBS and NBC each usually offered prime-time entertainment programming from 7:30–11:00 p.m. Eastern Time. PTAR first restricted first-run network programming in 1971/72

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73 This welfare loss arises from a government-imposed restraint that prevents the market from achieving a competitive equilibrium. No similar welfare inference can be drawn from voluntary private contracts with analogous restrictions; indeed, in a competitive environment such contracts generally promote welfare.

74 The IBM analogy in the introduction to this report can help illustrate the problems in measuring the effects of the Rule. Computer users in the 13 states where IBM is, hypothetically, forbidden to sell computers fall into three classes: (1) those who would prefer IBM, but settle for an inferior substitute, (2) those who would not have chosen IBM in any event and (3) those who go without a computer altogether when denied an IBM computer. There is no loss of welfare for group (2), unless (freed of competition from IBM) other suppliers offer fewer alternatives. But groups (1) and (3) suffer a welfare loss which may be considerable. Probably group (1) will be much larger than group (3). In practice it would be difficult to measure the size of group (1) because of the difficulty of distinguishing members of groups (1) and (2). It is easier to identify group (3), which is what has been done with respect to television viewers affected by PTAR.

and then banned the use of off-network programming by affiliates in the top-50 markets in 1972/73. In response to the Rule, during the 1971/72 season the networks offered prime-time programming from 7:30–10:30 p.m. Eastern Time on Tuesday evenings and from 8–11 p.m. on other weeknights. The networks offered prime-time programming in subsequent seasons only from 8–11 p.m. each weeknight. Economists Incorporated examined data on weekday viewing[75] during 7:30–8:00 p.m., 8:00–8:30 p.m. and 8:30–9:00 p.m. for the last two seasons before the Rule went into effect[76] and the first two seasons under the Rule.[77] The 1976/77 season was also examined to determine whether the observed initial effects of the Rule persisted.[78] HUT data measure all viewing of television programming during a period, not just ratings of ABC, CBS and NBC affiliates.[79]

Because the networks continued to offer network programming on Tuesday nights from 7:30–8:00 p.m. (but not on other weeknights) during the first season under PTAR, it is possible to examine directly PTAR's effect on television viewing during that season. Table 4 displays data on the average percentage of television households using television on Tuesday evenings and the average for other weekday evenings during various periods in selected television seasons.

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75 Viewing is measured by national households using television ("HUTs") as a percentage of total television households ("TVHH"). For these purposes, television seasons run from September through April.

76 1969/70 and 1970/71.

77 1971/72 and 1972/73.

78 The 1976/77 season was chosen as a point of comparison based on ready availability of data. Economists Incorporated is aware of no evidence that the results would be materially different for other proximate years.

79 *See* Appendix I for a detailed description of the data and methodology of this viewing study.

Table 4 Viewing by period, selected TV seasons[80]

Television season	7:30–8:00 p.m.	8:00–8:30 p.m.	8:30–9:00 p.m.
		Tuesdays	
1969/70	63.26	66.17	67.42
1970/71	63.16	66.23	67.35
1971/72	62.79	65.93	67.22
		Other weekdays	
1969/70	60.49	63.83	65.11
1970/71	61.48	64.43	65.46
1971/72	58.96	62.93	64.70

Table 4 shows that when PTAR was imposed in 1971/72, the percentage of households using television during 7:30–8:00 and 8:00–8:30 p.m. declined slightly on Tuesday evenings, when network programming continued to be presented, but declined substantially more on other weekdays, when network programming was removed. This is what one would expect, given the substitution of lower quality programming on ABC, CBS and NBC affiliates on nights other than Tuesday. The reduction in 8:00–8:30 p.m. viewing on those other nights may be explained by lower audience lead-ins to programs for 8:00–8:30 p.m. due to lower television viewing in the immediately preceding period. If so, then the lower percentage of television households using television during 8:00–8:30 p.m. after the Rule went into effect should also be attributed to the effects of the Rule.

One way to measure the effect of the Rule during the 1971/72 season is to determine the difference between Tuesday television viewing and television viewing on other weekday nights. The two seasons prior to the Rule serve

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80 Units are percentages of all television households. Source: Appendix I, Table I-1.

as a baseline. Television viewing on Tuesday night during 7:30–8:00 p.m. during the 1971/72 season did not differ significantly from the average level in that period in the previous two seasons. Viewing on the *other* weekdays from 7:30–8:00 p.m. in 1971/72 declined two share points, however, compared to the average of the previous two seasons, and this decline was statistically highly significant.[81] Television households numbered 62.1 million during the 1971/72 season. A loss of two share points suggests that *on average one-and-a-quarter million households turned off their television sets on weekday nights other than Tuesday during 7:30–8:00 p.m. in 1971/72 as a result of the Rule!* These stark data indicate one dimension of the social costs and viewer harm caused by the Rule.

4. Viewing reduction after the 1971/72 season

After the 1971/72 season, none of the three major networks offered regularly scheduled entertainment programming during 7:30–8:00 p.m. on any weeknight. A Tuesday comparison test is therefore not available for later years. To measure the effect of PTAR after the 1971/72 season, one simply compares HUT levels before the Rule with HUT levels afterward. Relevant data on the average weekly HUTs by period, expressed as a percentage of all television households (TVHH) are presented in Figure 11.

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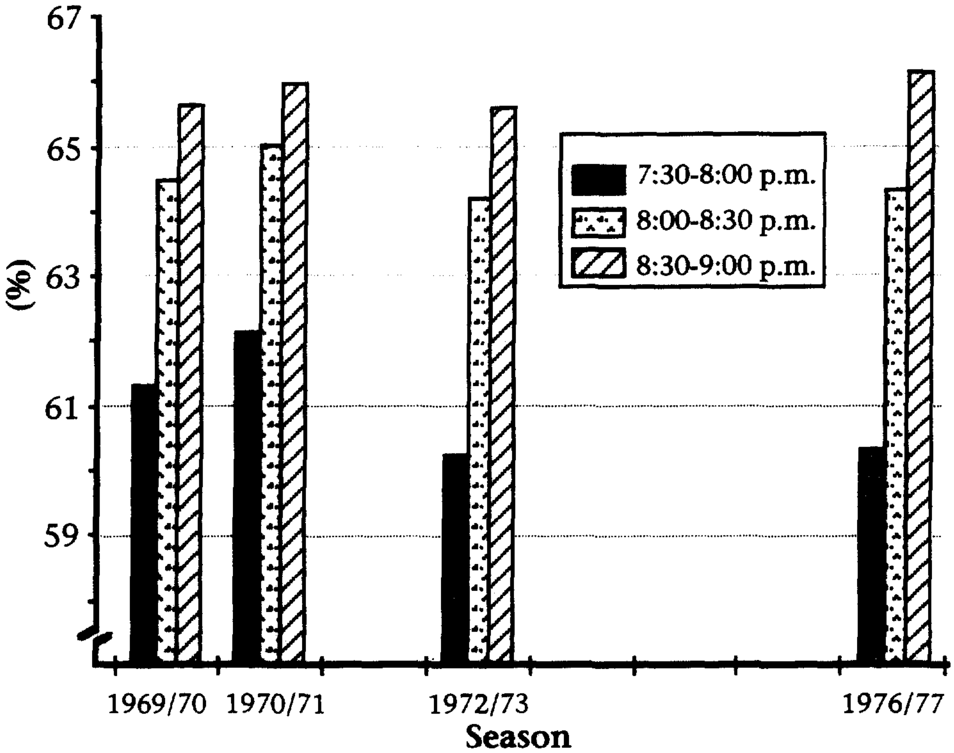
81 It is not appropriate simply to measure the difference between viewing on Tuesday night and all other weekdays in 1971/72 to determine the effect of the Rule because, as Table 4 indicates, viewing was normally higher on Tuesday than the average on all other weekdays. Rather, PTAR's effect can best be measured by the *relative* falloff in viewing on other weekdays compared to what it was during the two seasons before the Rule, and it is this result that is reported here.

Figure 11 **Percentage of TV households using television before and after PTAR**[82]

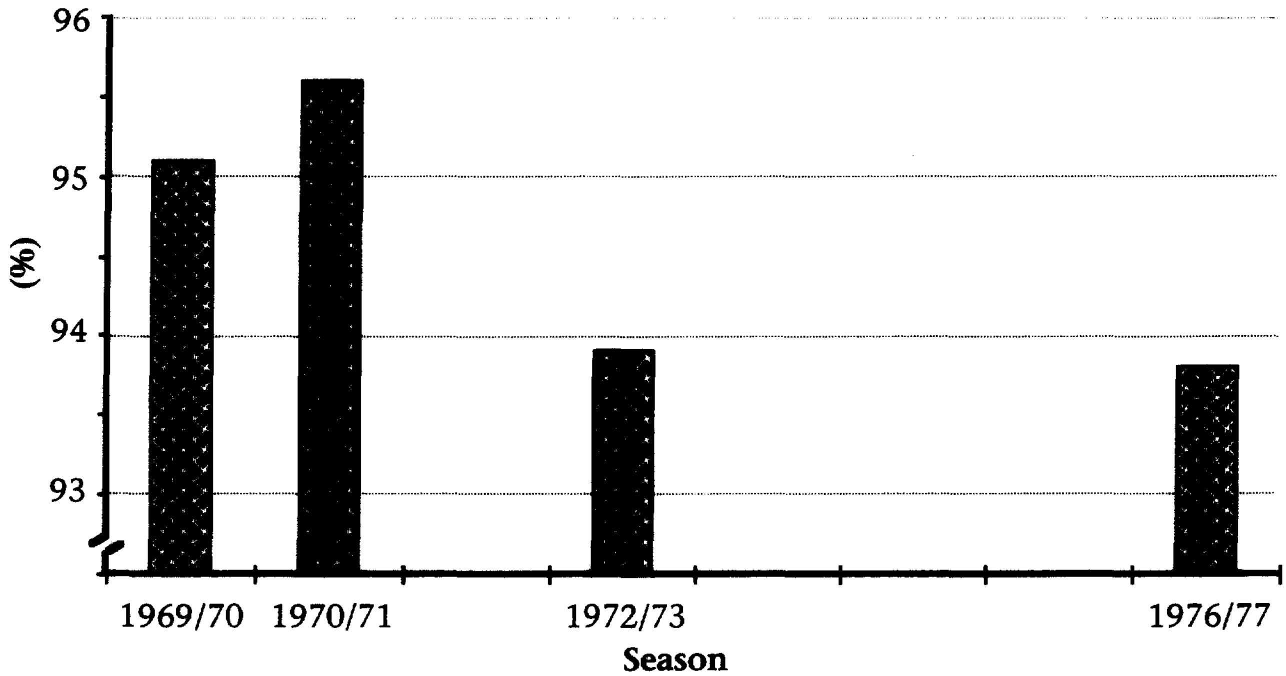


As can be seen in Figure 11, household television viewing behavior during 7:30–8:00 p.m. remained altered beyond the 1971/72 season. There are two ways to quantify the effects of the Rule on television viewing after the 1971/72 season. The first uses the two seasons before the Rule as a baseline, and assumes that, but for the Rule, viewing would have stayed the same for 7:30–8:00 p.m., as in fact it did during 8:30–9:00 p.m. In 1969/70 and 1970/71, viewing during the access period (for this purpose 7:30–8:00 p.m.) averaged 61.7 percent of TV households. In 1972/73 viewing was 1.46 percentage points lower than the average of the previous two seasons, and this decline is statistically significant. As there were 64.8 million TVHH during that season, this translates into approximately 950,000 television house-

82 Source: Appendix A, Table A-13.

holds that simply turned off their televisions every night in 1972/73 during 7:30–8:00 p.m.

Figure 12 **Access period viewing as percentage of 8:00–8:30 p.m. viewing**[83]



The preceding measure uses the years before the Rule as a reference point for television viewing. A second, and more conservative, method to estimate the Rule's effect on television viewing is to assume that the Rule had no impact on 8:00–8:30 p.m. and that the ratio of viewing between 7:30–8:00 p.m. and 8:00–8:30 p.m. measures the impact of the Rule. If the Rule had no effect on television viewing, it would be expected that the ratio between those two periods would be the same in each of the four television seasons.

In fact the ratio of viewing in the half hour before 8 p.m. to viewing in the half hour after 8 p.m. fell from its average during 1969/70 and 1970/71 to lower levels in 1972/73 and 1976/77, and the difference between the pre-

83 Source: Appendix A, Table A-14.